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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,511	06/03/2005	Elena Voltolina	PI7237US1	1294
27045	7590	04/27/2009		
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			EXAMINER BALAING, ARIEL A	
			ART UNIT 2617	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/517,511

**Applicant(s)**

VOLTOLINA ET AL.

**Examiner**

ARIEL BALAOING

**Art Unit**

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 February 2009.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-18 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 10 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/5508)  
Paper No(s)/Mail Date 2/3/2009  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Inventor's Patent Application  
6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-4, 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over KALL et al (US 2003/0043786 A1) in view of SARKKINEN et al (US 2003/0134653) and 3GPP TS 22.146 version 5.2.0 Release 5 (hereinafter 3GPP TS 22.146).

Regarding claim 1, KALL discloses a method for providing broadcast/multicast service in a mobile telecommunication system (Figures 1-4) having at least one serving support node **32**, at least one radio network controller **36** and means for radio communication with at least two user equipments **12** subscribing to said broadcast/multicast service, comprising the steps of: providing multimedia broadcast/multicast data from said at least one serving support node to said at least two user equipments, initiating establishment a common user plane **66**, **108** between a first serving support node of said at least one serving support node and a first radio network controller of said at least one radio network controller for multimedia broadcast/multicast data to at least a first user equipment and a second user equipment of said at least two user equipments (abstract; paragraph 15-17, **34**, **35**; multicast of data between SGSNs and UEs). However, KALL does not expressly disclose the use of multimedia

broadcast/multicast; and wherein a common user plane between a first serving support node and a first radio network controller is via an IU interface. In the same field of endeavor, SARKKINEN discloses providing multimedia broadcast/multicast service in a mobile telecommunication system having at least one serving support node, at least one radio network controller and means for radio communication with at least two user equipments subscribing to said multimedia broadcast/multicast service (FIGURE 5; paragraph 7, 8); and wherein a common user plane between a first serving support node 56 and a first radio network controller 30, 35 is via an IU interface (Figure 1; paragraph 21). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify KALL to include the teachings of SARKKINEN, since the use multimedia broadcast/multicast service would provide the multicasting of KALL with a standardized method for multicasting multimedia data. Furthermore the use of an lu network between a core network and UTRAN is conventional in the art and allows communication between nodes and the network. Although the combination of KALL and SARKKINEN further disclose wherein a user equipment is added by issuing a Multicast Attach Request Message (SARKKINEN – Figure 5; multicast activation request), the combination of KALL and SARKKINEN does not expressly disclose upon indication by the second user desiring to leave, the second user being removed by issuing a Multicast Detach Request message. In the same field of endeavor, 3GPP TS 22.146 discloses wherein a second user equipment is added by issuing a Multicast Attach Request message and upon indication by the second user desiring to leave, the second user being removed by issuing a Multicast Detach

Request message (page 8-9, section 4.2.1; subscription and un-subscription to a multicast service would inherently require a message sent to the network in order to begin and end service). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of KALL and SARKKINEN to include the teachings of 3GPP TS 22.146, since such a modification would allow the multicast services of KALL and SARKKINEN to implement standardized means and protocols when implementing said multicast services.

Regarding claim 2, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. KALL further discloses wherein all said at least two user equipments within a service area use said common user plane (Figure 2; paragraph 34, 35; UE1 and UE2).

Regarding claim 3, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. KALL further discloses wherein said first user equipment has said first radio network controller as serving radio network controller and said second user equipment has a second radio network controller as serving radio network controller, whereby a communication path of a control plane of at least one of said first and second user equipment is separated from a communication path of said common user plane (Figure 2; paragraph 34, 35; UE3, UE4, and UE5 use differing RNCs). Furthermore, it has been held that the functional "whereby" statement does not define any structure and accordingly cannot serve to distinguish. *In re Mason*, 114 USPQ 127, 44 CCPA 937 (1957).

Regarding claim 4, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. KALL further discloses wherein a communication path of said control plane of said second user equipment is separated from said communication path of said common user plane (Figure 2; paragraph 34, 35; user plane of either UE1 or UE2 would inherently be separated from the control plane of UE3 since the control plane is used to provide control signals between a node and the RNC. All UEs are serviced by the same SGSN. Furthermore UE4 and UE5 would also provide separate control and user planes).

Regarding claim 12, KALL discloses a controlling radio network controller **36** in a mobile telecommunication system having at least one serving support node **32** and means for radio communication with at least two user equipments **12** subscribing to a broadcast/multicast service (abstract), comprising: means for providing broadcast/multicast data from said at least one serving support node to said at least two user equipments, means for initiating establishment of a common user plane **66, 108** between a first serving support node of said at least one serving support node and a first radio network controller of said at least one radio network controller for broadcast/multicast data to at least a first user equipment and a second user equipment of said at least two user equipments (abstract; paragraph 15-17, 34, 35; multicast of data between SGSNs and UEs using common channels). However, KALL does not expressly disclose the use of multimedia broadcast/multicast. In the same field of endeavor, SARKKINEN discloses providing multimedia broadcast/multicast service in a mobile telecommunication system having at least one serving support node, at least

one radio network controller and means for radio communication with at least two user equipments subscribing to said multimedia broadcast/multicast service (FIGURE 5; paragraph 7, 8); and wherein a common user plane between a first serving support node 56 and a first radio network controller 30, 35 is via an IU interface (Figure 1; paragraph 21). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify KALL to include the teachings of SARKKINEN, since the use multimedia broadcast/multicast service would provide the multicasting of KALL with a standardized method for multicasting multimedia data. Furthermore the use of an lu network between a core network and UTRAN is conventional in the art and allows communication between nodes and the network. Although the combination of KALL and SARKKINEN further disclose wherein a user equipment is added by issuing a Multicast Attach Request Message (SARKKINEN – Figure 5; multicast activation request), the combination of KALL and SARKKINEN does not expressly disclose upon indication by the second user desiring to leave, the second user being removed by issuing a Multicast Detach Request message. In the same field of endeavor, 3GPP TS 22.146 discloses wherein a second user equipment is added by issuing a Multicast Attach Request message and upon indication by the second user desiring to leave, the second user being removed by issuing a Multicast Detach Request message (page 8-9, section 4.2.1; subscription and un-subscription to a multicast service would inherently require a message sent to the network in order to begin and end service). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of KALL

and SARKKINEN to include the teachings of 3GPP TS 22.146, since such a modification would allow the multicast services of KALL and SARKKINEN to implement standardized means and protocols when implementing said multicast services.

Regarding claim 13, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. KALL further discloses wherein said means for using a common user plane is arranged to handle communication to all said at least two user equipments within a service area (Figure 2; paragraph 34, 35; UE1 and UE2).

Regarding claim 14, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. KALL further discloses wherein an interface to a second radio network controller serving as serving radio network controller of said second user equipment, and means for separating a communication path of a control plane of at least one of said first and second user equipment from a communication path of said common user plane (Figure 2; paragraph 34, 35; UE3, UE4, and UE5 use differing RNCs). Furthermore, it has been held that the functional "whereby" statement does not define any structure and accordingly cannot serve to distinguish. *In re Mason*, 114 USPQ 127, 44 CCPA 937 (1957).

Regarding claim 15, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. KALL further discloses wherein said means for separating is arranged to separate said communication path of said control plane of said second user equipment from said communication path of said common user plane (Figure 2; paragraph 34, 35; user plane of either UE1 or UE2 would inherently be separated from the control plane of UE3 since the control plane is used to provide



control signals between a node and the RNC. All UEs are serviced by the same SGSN. Furthermore UE4 and UE5 would also provide separate control and user planes).

4. Claims 5-11, 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over KALL et al (US 2003/0043786 A1) in view of SARKKINEN et al (US 2003/0134653) and 3GPP TS 22.146 version 5.2.0 Release 5 (hereinafter 3GPP TS 22.146), and in further view of CHUAH (US 2003/0076803 A1).

Regarding claim 5, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of KALL, SARKKINEN, and 3GPP TS 22.146 does not expressly disclose further comprising the step of communicating MBMS information of said second user equipment from said second radio network controller to said first radio network controller. In the same field of endeavor, CHUAU discloses communicating multicast information of a second user equipment from a second radio network controller to a first radio network controller (abstract; paragraph 20, 21, 23). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify CHUAU to include the teachings of the combination of KALL, SARKKINEN, and 3GPP TS 22.146, since CHUAU teaches that such a modification would provide improved system performance and load balancing (see paragraph 11).

Regarding claim 6, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of KALL, SARKKINEN, 3GPP TS 22.146, and CHUAH further discloses wherein said MBMS information of said second user equipment comprises an attach request the multicast Attach Request message

and Multicast Detach Request message (3GPP TS 22.146 - section 4.2.1), each message including a cell ID of the second user equipment (SARKKINEN – paragraph 31, 34; cell area of Multicast service), an MBMS service ID (SARKKINEN - paragraph 36-41; service indication) and an Identification of a user equipment (SARKKINEN - paragraph 36-41; Authorized UE's). Although the combination of KALL, SARKKINEN, 3GPP TS 22.146, and CHUAH does not expressly disclose the use of a U-RNTI as an identification of a user equipment, the examiner takes Official Notice that the use of a U-RNTI (i.e. temporary identification) within a UTRAN system is conventional and commonplace in the art and therefore, the use of a U-RNTI for a user equipment identification would have been obvious to a person of ordinary skill in the art as both provide identification of a user equipment.

Regarding claim 7, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of KALL, SARKKINEN, 3GPP TS 22.146, and CHUAH further discloses further comprising the step of determining, in said first radio network controller, whether use of common resources for MBMS data is favorable, based on said MBMS information communicated from said second radio network controller (KALL - paragraph 15-17, 34, 35; multicast data (common channel broadcast) based on determined user terminals; SARKKINEN – paragraph 51, 52; updated multicast tables).

Regarding claim 8, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of KALL, SARKKINEN, 3GPP TS 22.146, and CHUAH further comprising the step of communicating information

associated with MBMS from said first radio network controller to said second radio network controller (CHUAH - paragraph 20, 21, 23).

Regarding claim 9, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of KALL, SARKKINEN, 3GPP TS 22.146, and CHUAH further discloses wherein said information associated with MBMS communicated from said first radio network controller to said second radio network controller comprises an attach response (CHUAH - paragraph 20, 21, 23; handover involves attach and release to and from a node and/or basestation controller).

Regarding claim 10, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of KALL, SARKKINEN, 3GPP TS 22.146, and CHUAH wherein said information associated with MBMS communicated from said first radio network controller to said second radio network controller comprises an indication of transferring between a mode using said common user plane and a mode using dedicated user planes (KALL – paragraph 16, 17, 19; unicast and multicast determination).

Regarding claim 11, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of KALL, SARKKINEN, 3GPP TS 22.146, and CHUAH wherein said information associated with MBMS communicated from said first radio network controller to said second radio network controller comprises a request to remove any dedicated user planes to said second radio network controller for said at least one user equipment (KALL – paragraph 16, 17, 19; unicast and multicast determination; SARKKINEN – paragraph 51, 52; updated multicast tables).

Regarding claim 16, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of KALL, SARKKINEN, and 3GPP TS 22.146 further discloses wherein a MBMS information of said second user equipment comprising the Multicast Attach Request message and the Multicast Detach Request message, each message including a cell ID of the second user equipment (SARKKINEN – paragraph 31, 34; cell area of Multicast service), an MBMS service ID (SARKKINEN - paragraph 36-41; service indication) and an Identification of a user equipment (SARKKINEN - paragraph 36-41; Authorized UE's). Although the combination of KALL, SARKKINEN, 3GPP TS 22.146, and CHUAH does not expressly disclose the use of a U-RNTI as an identification of a user equipment, the examiner takes Official Notice that a the use of a U-RNTI (i.e. temporary identification) within a UTRAN system is conventional and commonplace in the art and therefore, the use of a U-RNTI for a user equipment identification would have been obvious to a person of ordinary skill in the art as both provide identification of a user equipment. However, the combination of KALL, SARKKINEN, and 3GPP TS 22.146 does not expressly disclose wherein said interface is arranged to communicate MBMS information of said second user equipment from said second radio network controller to said first radio network controller. In the same field of endeavor, CHUAH discloses wherein an interface is arranged to communicate multicast information of a second user equipment from a second radio network controller to a first radio network controller (abstract; paragraph 20, 21, 23). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify KALL, SARKKINEN, and 3GPP TS 22.146

to include the teachings of CHUAH since CHUAH teaches that such a modification would provide improved system performance and load balancing (see paragraph 11).

Regarding claim 17, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of KALL, SARKKINEN, 3GPP TS 22.146, and CHUAH further discloses further comprising means for determining whether use of common resources for MBMS data is favorable, based on said MBMS information communicated from said second radio network controller (KALL - paragraph 15-17, 34, 35; multicast data (common channel broadcast) based on determined user terminals; SARKKINEN – paragraph 51, 52; updated multicast tables).

Regarding claim 18, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of KALL, SARKKINEN, 3GPP TS 22.146, and CHUAH further discloses wherein said interface is further arranged to communicate information associated with MBMS from said first radio network controller to said second radio network controller (CHUAH - paragraph 20, 21, 23).

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ARIEL BALAOING whose telephone number is (571)272-7317. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, V. Paul Harper can be reached on (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VINCENT P. HARPER/

/Ariel Balaoing/

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